pp 10 - 11: "CQ-U."

RS*RS*RS, by L. Labutin, UA3CR.

In March of this year /1982/, stations of the "Komsomol'skaya Pravda" polar expedition operated from the Arctic /area?/ /rayon?/ of Tiksi. Communications via the "Radio" satellites were carried out. The ski group (EKØKP) used a transmitter made by UA1MC and a 3-element beam antenna with a ski pole serving as the traverse /boom?/ made by UAØQCG. Included in the equipment was a keyboard memory device with a capacity of 240 Morse code characters, designed and built by UW3EH. The total weight of the equipment (not counting the batteries) was 1 kg. The operators of the base camp, using a stationary transmitter and a 3-element beam, carried out, via amateur repeaters 1/, 250 QSO's with radioamateurs of Europe, Asia, and America and 30 QSO's with the RS5 and RS7 robots. V. Petrov, UL7GBDF 2/, from Alma Ata, conducted the greatest number of QSO's with stations of the expedition.

The first reports have arrived on monitoring of the RS signals. S. Malyshev, a radioman of the 27th Soviet Antarctic Expedition serving at the Leningradskaya station, monitors the beacon, robot, and repeater signals. Via 4K1G, he advised that on 17 August he recorded a contact between VK5RO and the RS5 robot. On 22 August he monitored contacts by Australian hams via the RS8 repeater. To improve his monitoring capability, S. Malyshev designed special antennas, prepared a transparency /? - planshet/, and -- using the system described in "Radio" magazine -- is making orbital calculations. He receives satellite parameters and ascending node data over the amateur airwaves.

V. Val'chenko, UA3QER, director of the Voronezh Youth Technical-Sport Club "Zarya," reports that a space communication section has been organized. Its members have made over 500 QSO's via satellite.

V. Terziyev, LZ1AB, reports that A92P and A92CX of Bahrein are preparing to operate via amateur radio satellites.

O. Avdeyev, UAØ-139-1, continually monitors RS signals in Anadyr, using R-309 and R-250 receivers and a 35-meter-long inclined beam with a 30° angle /i uglom podvesa 30°/. Signal strength is from S6 to S9.

VHF*UHF*SHF, by S. Bubennikov /UK3DDB/.

144 MHz -- E_s.

The E_s-season opened later than usual this year, with the first E_s-QSO's taking place on 31 May: UA6YAF worked Y22ME and Y22QG and UB5ICR worked OK1ATQ. June was disappointing, producing only a single powerful and prolonged opening on the 8th. But July made up for everything, with 12 openings, often for long periods; during this time, Soviet ultrashortwavers made several thousand (!) QSO's with stations 1000 - 2500 km away and further. The editors of "Radio" received information on contacts by 167 stations from 50 oblasts of the USSR and had trouble condensing this for inclusion in "CQ-U."

Openings occurred on 8/9/12/24 June and on 3/7/8/9/10/11/16 July.

Most of the ultrashortwavers had prepared for the E_s-season in advance. Beginning at the end of April, higher-than-usual MUF's were noted in the VHF FM broadcasting (70 and 100 MHz) and television bands. UA6AEC and others noted that, when they operated at the same same time as near-by stations, these could not hear the station being worked, due to the small dimensions of the clouds for 144 MHz. Sometimes the clouds were situated in such a way that dozens of amateurs could work only one other station (for example UD6DFD or else UG6AD).

Fading was insignificant, so use of QRP transmitters was feasible. Thus, on 8 June UA6ACG worked Y22ME and OK1DPB using a transmitter with an output of 0.3 Watts.

The ease of establishing contacts tempted /soblaznyala/ many to call CQ, causing a number of operators to miss opportunities to work DX located 2200 - 2400 km away. UD6DED worked RC2WBR, 2400 km away, on 7 July, the first from Azerbaydzhan to do so. The same day, UA3DHC worked I3LDS, UK3AAC worked I6TJQ, and UK5EFC worked EA3EEP and EA3GND (QRB almost 2700 km!).

On 8 June UB5JIN worked FC6ABT for the first contact between UB5 and FC. On 9 June UB5GFS and RB5GBP worked 9H1BT and 9H1ET. On 7 July UA3PBY and RC2OCJ worked HB9QR and UB5LNR worked LX1JA.

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1. The phrase "via amateur repeaters" is broad enough to cover contacts via AMSAT-OSCAR, as well as RADIO, satellites.
2. Sic. An unusual example of a misprint in the Soviet press. Alma Ata stations have G as the first letter of the suffix.

Chronicle.

UAØLBU from Artem reports that a distant "tropo" was observed in the coastal area 22 June at 0220 UT. He had to be content with one QSO, with JH4MUD (QRB over 800 km).

UAØLBU writes that coastal ultrashortwavers are to activate the UKØLBF beacon in the near future, and UAØLFK plans to begin experimenting as early as in August with having MS QSO's with JA.

On account of the nature of ultrashortwave communication (in UAØ all DX is now found in Japan, and the QTH-locator-square system is not used there), the number of JA districts /? - rayony/ and the number of stations worked are taken as achievement indicators. The first line in the table for each station shows achievements on 144 MHz, the second on 430:

Call-sign	Countries	Stations	Districts
RAØLAN	2	60	10
UAØFBE	2	52	5
UAØLBU	2	27	5
	1	2	-
UAØLFK	2	23	7
	1	1	-
RAØLFI	2	12	4
	1	1	-
UWØFM	2	15	3
RAØLCM	2	11	3
UAØLDL	1	8	-

pp 12 - 13: "VOYAGE TO THE ARCTIC," by N. Grigor'yeva.

The year 1932 saw a planned and frontal attack on the Arctic and establishment of the Main Administration for the North Sea Route. "Radio" magazine correspondent N. Grigor'yeva's article reflects the colossal changes that have occurred in what she calls the "Republic of Radio" (since present-day activities in the Arctic would be unthinkable without radio).

Dikson is the heart of the Western Arctic. It includes a sea port, a hydrometeorological center, and a territorial communication network. The first polar radio center was built in the recond time of less than half a year, almost 50 years ago -- on 24 December 1934 Leningrad shortwaver Vasiliy Vasil'yevich Khodov directed construction, and among the builders were many shortwavers -- V. Dobrozhanskiy, V. Volkov, B. Kharitonovich, and N. Zlatoverkhovnikov; later the fates of such well-known radiomen and shortwavers as V. Ignatchenko, N. Stromilov, and others, were linked with Dikson, a distinguishing feature of which is a mass of antennas serving as a constrant reminder of all-weather and all-powerful readiocommunication. Much of the basic population of the polar stations combines the professions of meteorologist and radioman.

Viktor Vasil'yev, UAØBBP, works at the receiving station of the communication network. He's been interested in radio since the age of 12 and learned the basics of radiosport in his native town of Ochakor in Nikolayevskaya Oblast'. He served as a radioman in the army and then, in 1970, received an individual call-sign. Soon afterwords he completed a course for polar workers and went off to Dikson. He has operated with the call-sign UAØBBP since 1974 and is prepareing equipment to work via the radioamateur afticial Earth satellites. Viktor is chief of the collective radiostation of the communication network -- UKØKAD. He intends to attract not only radiomen to the station but also schoolchildren, of whom there are approximately 150.

Viktor explained that besides himself there are three other shortwavers: On the island -- Sasha 3/ Malygin, UAØAB, and Viktor Kurbatov, UAØBAQ, and on the shore portion of the settlement -- Lyudmila Velovodz', UAØBYL. The author wanted very much to meet [L]yudmila 4/ but did not succeed in doing so since the ice road linking the island and shore portions of the settlement was beginning to break up /? - raskisat'/.

It is easy to imagine what television means under local conditions. The Ekran television system now provides it, and 22 of the 33 polar stations in the Dikson area /? - Diksonovskiy rayon/.

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3. Nickname for Aleksandr.
4. Presumably because both are women.

The author had to leave for home on short notice due to rapidly-changing flying conditions, thereby missing an interview with Viktor Gladyshev, UAØBBG, from the island of Uyedineniya. Unknown to her, at that time old-time Minsk shortwaver Yakov Isaakovich Aksel', UC2BF, worked him. A few days later, her office telephone at "Radio" magazine in Moscow rang, and she jotted down details on UAØBBG: His equipment - UW3DI transceiver, first model. Antennas - double quad at 15 meters height, dipole, and exponential spike. Has had present call-sign since 1979. Especially active since last year. Basically, propagation is good on 20 meters. In a year has had more than 2000 contacts. Has contacted the Molodezhnaya and Antarctide /?/ stations on 10, 20, and 40 meters. Has worked New Zealand, Africa, South America, in a word all continents. Before Uyedineniya he wintered over on Dikson and on the island of Preobrazheniye in the Laptev Sea.

The archipelago of Franz-Joseph-Land and the island of Novaya Zemlya are considered separate territories for purposes of the R-150-S listing. But Severnaya Zemlya, which was the last great geographic discovery of the century (until 1913, its existence was unknown) and whose area is greater than that of Holland, for some reason has not been given the status of a separate "country." It's time to correct this misunderstanding.

Article datelined Island of Dikson;
Island of Golomyannyy;
Moscow.

p 22: "QUA -- IDEAS, EXPERIMENTS, EXPERIENCE," edited by Master of Sport S. Bunin, UB5UN.

In the 1960's, the G4ZU antenna, also known as the "birdcage," enjoyed popularity among shortwavers. With time, however, it was forgotten about, due to its relatively limited gain and front-to-back ratio. Experimenting with various antennas, UV6AF and UA6APE modified this antenna, positioning it horizontally and changing the feed point. This increased the distance between the current _____ /??? puchnosti/ of the active element and reflector; the parameters and tuning of the antenna corresponded to the tuning characteristics of a dual quad; the construction of the antenna was flatter /? - boleye ploskaya/, which simplified turning; the necessary number of stand-off insulators /??? - rasporki/ was lessened -- only the boom had to be insulated.

One must consider one disadvantage of this antenna to be the need to use high-quality insulating material at points B and C to insulate elements of the vibrator and reflector, since there is maximum voltage at these points.

The designers have tested the antenna over a long period of time on the 10 and 20m bands. The front-to-back ratio was greater than 30 dB, and the gain was about 7 to 8 dB. Unfortunately, the designers did not measure the input resistance of the antenna.

В 60-х годах у коротковолновиков пользовалась популярностью антенна G4ZU, известная еще и под названием «птичья клетка». Однако со временем из-за сравнительно небольших значений усиления и отношения излучения «вперед-назад» о ней забыли. Экспериментируя с различными антеннами, UV6AF и UA6APE модифицировали указанную антенну: расположили ее горизонтально и изменили точку питания (рис. 3). Это позволило получить определенные преимущества перед оригинальным вариантом антенны G4ZU, а именно: увеличилось расстояние между пучностями тока активного элемента и рефлектора; параметры и настройка антенны стали соответствовать параметрам и характеру настройки «двойного квадрата»; конструкция антенны стала более плоской, что упростило ее вращение; уменьшилось (по сравнению с «двойным квадратом») необходимое число изоляционных распорок — изолированным должен быть лишь «бум» (он может быть выполнен и из металлических труб, с диэлектрическими вставками).

Недостатком антенны следует считать необходимость применения высококачественного изоляционного материала в точках *B* и *C* для изоляции элементов вибратора и рефлектора, поскольку в этих точках максимумы напряжения.

Антенна длительное время испытывалась авторами на 10- и 20-метровом диапазонах. При этом отношение излучения «вперед-назад» было более 30 дБ, а усиление составляло около 7...8 дБ. К сожалению, авторы не измерили входное сопротивление антенны.

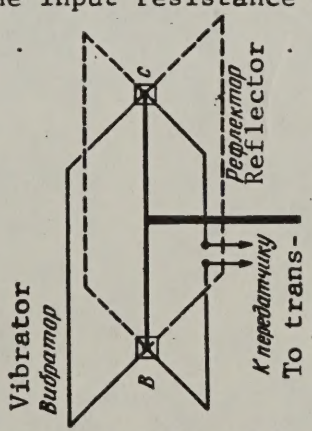

Рис. 3
Fig. 3

РАДИО № 11, 1982 г. ◆

pp 24 - 26: "THE MOST POWERFUL IN THE WORLD," by A. Gorokhovskiy, engineer. The story of the Central Radiotelephone Station, built in Nizhniy Novgorod and officially opened 7 November 1922 in Moscow as the Komintern Radiostation. It was the first, and for many years the most powerful, station of its type in the world. In Spring 1924 the station was converted for operation on 1500 meters instead of 3200 meters, since in 1924 the band 200 to 1500 meters was designated for radiobroadcasting.